

1491. SCABIOSA SUCCISA.**Scabious.**

From France. Received through Mr. W. T. Swingle, December, 1898. (2 packages.)

"*Scabiense succisee*."

See No. 1490.

1492. GLYCINE HISPIDA.**Soy bean.**

From France. Received through Mr. W. T. Swingle, December, 1898. (2 packages.)

"An erect annual legume, with hairy stems and leaves, which has been cultivated in China and Japan from remote antiquity. It was long grown in botanic gardens, but when the facts concerning its use as a human food by oriental nations came to light about twenty years ago, it was largely introduced into this country and Europe, where thorough trials of its forage and food value have been made. There are a large number of named varieties, which vary in the color of their seeds and the length of time which the plants require to come to maturity. The seed is planted at the rate of half a bushel to the acre, in drills $2\frac{1}{2}$ to 3 feet apart, and cultivated about the same as Indian corn. In Virginia soy beans are planted between the hills of corn, so that two crops are produced on the same field at the same time. The yields of seed are often enormous. Soy beans are fed to stock green as silage, or as hay. The stems are rather woody and do not make the best quality of hay, but as either ensilage or green forage they are unsurpassed. The hay contains from 14 to 15 per cent crude protein and 3 to 6 per cent of fat. The beans contain from 32 to 42 per cent protein, and from 12 to 21 per cent of fat in fresh material. When fed to milch cows, a ration of soy beans increases the yield of milk, improves the quantity of the butter, and causes the animal to grow rapidly in weight. It is an excellent addition to a ration for feeding cattle. In China and Japan, where the soy bean is an article of diet, substances similar to butter, oil, and cheese, as well as a variety of dishes, are prepared from it. The yield of green forage amounts to from 6 to 8 tons per acre, and the beans from 40 to 100 bushels. The feeding value of the bean has been found to be greater than that of any other known forage plant except the peanut." (*Jared G. Smith.*)

1493. GLYCINE HISPIDA.**Soy bean.**

From France. Received through Mr. W. T. Swingle, December, 1898. (1 package.)

"*Soja hispida à grain noir*" (black-seeded *Soja hispida*).

1494. SPERGULA ARVENSIS.**Spurrey.**

From France. Received through Mr. W. T. Swingle, December, 1898. (13 packages.)

"*Spergule ordinaire*."

"An annual, producing a low tangled mass of succulent stems with numerous whorled linear leaves. It produces a crop in eight or ten weeks, and is valuable as a catch crop in short seasons and for soiling sheep and milch cows. It has been especially recommended as a first crop on the pine barrens of Michigan to turn over for green manure. The air-dried hay contains about 12 per cent of crude protein." (*Jared G. Smith.*)

"Small annual plant of moist and sandy soils; excellent green forage, especially for cows; it is hardly possible to use it in any other than the fresh state. The butter produced from the milk of cows fed on this plant is called 'Spurrey butter,' and is considered in Holland and Belgium of a superior quality. Dry hay is rarely made of it, nevertheless the straw left after beating out the seed forms a good fodder for cows and sheep. May succeed in stubble fields; good vegetable fertilizer to be plowed under green; may be cultivated on moist, light, sandy, or clayey-siliceous soils; it prefers foggy and humid climates. To be sown from March to May, but especially upon stubble after the harvest in August, to obtain one or two cuttings or to plow under as green fertilizer early in the winter. Sometimes the plant is allowed to run to seed, and in this case it may become biennial by reseeding with the seed falling out naturally before or during the harvesting. Spurrey is sometimes used in mixtures for green cutting." (*Vilmorin.*)

The seed weighs about $46\frac{1}{2}$ pounds per bushel; 18 to 27 pounds, or, according to some, 45 to 54 pounds, is to be sown per acre.